TECHNICAL NOTES

U. S. DEPARTMENT OF AGRICULTURE NEVADA SOIL CONSERVATION SERVICE

TN - AGRONOMY NV-59 April 18, 1991

From: Conservation Impact (CTIC Newsletter), Volume 9, No. 2, February 1991

TECHNIQUES FOR PROPER SOIL TESTING

Soil testing for nitrate is an important management tool for crop producers, and it can help protect groundwater quality as well. Here are some recommended steps to follow in determining the proper amount of fertilizer to apply for the coming crop year:

- Take soil samples as soon as the harvest is completed. Crop problems noted during harvest will be fresh in your memory.
- Sample the problem areas separately from the rest of the field.
- Split the field into sections according to soil type, topography or previous crop. The sections should not exceed 40 acres in size.
- Plan to take two types of samples; a routine fertility sample and a subsoil sample for nitrates. To take the general fertility sample, collect eight to ten cores from each 20 acres. The cores can be taken with a hand probe or spade and they should be taken to a depth of six- to eight-inches. A general fertility sample should be tested for pH, organic matter, zinc, phosphorus, and sulfur on sandy soils.
- The subsoil sample for nitrate requires samples to be collected to a depth of three feet. The samples from each site should be separated into layers; one sample to eight inches, a second sample for the eight- to 20-inch layer, and the third sample from the 20- to 36-inch layer.
- The sample from each core should be collected in clean, plastic buckets. The layer from each core should be mixed thoroughly and one pound or less of the sample should be placed in a clean, clearly marked container.
- Keep the samples cool and send them to a lab for analysis within 24 hours, or freeze them for long-term storage.

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